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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,130	11/14/2005	Peter Knoll	10191/3691	3607

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EXAMINER	
LIEU, JULIE BICHNGOC	
ART UNIT	PAPER NUMBER
2612	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,130	KNOLL, PETER	
	Examiner	Art Unit	
	Julie Lieu	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to Applicant's RCE and amendment filed February 05, 2009. Claims 21-34 have been added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 11-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn (US 2002/0011925) in view of Kinoshita et al. (US Patent No. 5,642,093).

As to claim 11, Hahn discloses a system, thus also method for warning a driver of a motor vehicle, comprising detecting an object (e.g. a pedestrian, automobile 301, 302, 303, etc…see fig. 4) (note that Hahn's system must detect an object so that the system knows where the object is to provide symbols to the location where the object would appear on the windshield of the vehicle); generating, in a direction of at least one object in a field of view of the driver, at least one optical warning by at least one signaling arrangement (paras. [0016] and [0017]); the at least one object (e.g. pedestrian, see para. 0019) being situated in vicinity of the motor vehicle. See abstract and figs. 1-4.

The reference fails to literally state that the at least one optical warning is generated at least prior to the at least one object becoming visible to the driver. However, it would have been

obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is designed to generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

Hahn fails to disclose detecting a lane or course of a roadway. However, it would have been obviuos to one skilled in the art to readily recognized the desirability of detecting a lane on the road for the purpose of providing a warning to a driver to the position of the vehicle in the lane to prevent off-lane travel as taught in Kinoshita et al. (Kinoshita) (see col. 4, lines 61-66, col. 4, last paragraph) because such warning would enhance the safety warning system of Hahn's especially Hahn's warning system is used to preferrably improve night vision.

As to claim 12, in the Hahn system, the at least one optical warning includes at least one of at least one patch of light and at least one warning symbol. See figs. 2-4 and para. [0017].

As to claim 13, in the Hahn system, at least one of display duration, a repetition frequency, a size, a color, and an intensity of the at least one optical warning is changeable. See para. [0010].

As to claim 14, the Hahn reference fails to literally state that the at least one optical warning is generated immediately prior to the at least one object becoming visible to the driver. However, the reference states that the display unit displays the specific image or symbol at locations of field of view of the operator and the duration of the specific image or symbol lying below a conscious and above an unconscious perception threshold of the operator (see abstract). Thus, it infers that the display displays the image prior to the object becoming visible to the driver. Also, it would have been obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is design to

generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

As to claim 15, the optical warning in Hahn's system is generated as a function of a dangerousness of a driving situation. Para [0010].

As to claim 16, in the Hahn system, the at least one optical warning is at least generated as a function of an optical signal of surroundings of the motor vehicle, the optical signals being generated by at least one image-sensor system including an infrared-sensitive image-sensor system. Para [0030].

As to claim 17, the least one of at least one projection device and at least one head-up display shown in Hahn's serves as the at least one signaling arrangement generates the at least one optical warning. See para. [0030].

As to claim 18, Hahn discloses a device for warning a driver of a motor vehicle, comprising:

a processing module arrangement having a module for detecting at least one obiect (e.g. a pedestrian, automobile 301, 302, 303, etc…see fig. 4) (note that Hahn's system must detect an object so that the system knows where the object is to provide symbols to the location where the object would appear on the windshield of the vehicle); and

at least one signaling arrangement for generating at least one optical warning, the at least one signaling means including an arrangement for generating the at least one optical warning in a direction of at least one object in a field of view of the driver, and the at least one object being situated in a vicinity of the motor vehicle (paras. [0016] and [0017]), wherein the at least one signaling arrangement includes an arrangement for generating the at least one optical warning in

the direction of the at least one object in the vicinity of the motor vehicle. See abstract and figs. 1-4 and para. [0030].

The reference fails to literally state that the at least one optical warning is generated at least prior to the at least one object becoming visible to the driver. However, it would have been obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is designed to generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

Hahn fails to disclose a module for detecting at least one of a lane and a course of a roadway. However, the use of a module for detecting lane markers is well known in the art as taught in Kinoshita wherein CCD cameras are used to detect lane markers and wherein such information is used to warning driver of an off-lane travel situation. Thus, in light of Kinoshita, it would have been obvious to one skilled in the art to employ this teaching in the Hahn system because it would further enhance the safety warning system disclosed by Hahn. It would have been obvious to one skilled in the art that the module for detecting an object would be separate from the module for detecting a lane because the lane detecting module detects downward at the surface of the road while an object detection module detects objects around the vehicle that may not be on the surface of the road (e.g. a highway traffic entrance gate). It would have also been obvious to one skilled in the art that these two modules work in parallel in the modified Hahn warning system because they would both be used to detect objects to warn vehicle operator of the modified system of Hahn's.

As to claim 19, In the Hahn system, the at least one signaling arrangement includes at least one of:

an arrangement (para. [0030]) for generating at least one of at least one patch of light and at least one warning symbol as the at least one optical warning (see figs. 2-4 and para. [0019]);

an arrangement for changing at least one of a display duration, a size, a color, and an intensity of the at least one optical warning (see para. [0010]);

an arrangement for generating the at least one optical warning as a function of a dangerousness of a driving situation (see para. [0010]).

As to claim 20, he Hahn system includes at least one infrared-sensitive image-sensor system for generating an optical signal of surroundings of the motor vehicle, wherein the at least one signaling arrangement includes at least one of a projection device and at least one head-up display. See figs. 1-4 and para. [0030].

As to claim 21, Hahn's system is a head-up display system that displays images of vehicle in front of the vehicle (para. [0020]). It is inherent that images of the object that was represented as a warning would become actual object displayed on the heads-up display once visible within the field of view of the driver. Therefore, once that image becomes an object for displayed on the heads-up display, it is distinguished from another optical warning of which is only a symbol to attract the driver's attention.

As to claims 22-28, the rejection of these claims recites what was stated in the rejection of claims 12-18.

As to claims 29-34, the rejection of these claims recites what was stated in the rejection of claims 12-17.

Response to Applicant's Arguments

4. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Lee can be reached on 571-272-2963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Julie Lieu/
Primary Examiner
Art Unit 2612

Feb 16, 09